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| 10/550,166 | 03/21/2007 | Stefan Schiele | KW-17 | 5363 |

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LUCAS & MERCANTI, LLP
475 Park Avenue South, 15th Floor
New York, NY 10016

| EXAMINER |
|---|
| HILTON, ALBERT |

| ART UNIT | PAPER NUMBER |
|---|---|
| 1717 | |

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| 05/12/2011 | ELECTRONIC |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

INFO@LMIPLAW.COM

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/550,166 | SCHIELE, STEFAN | |
| | Examiner | Art Unit | |
| | Albert Hilton | 1717 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☐ Responsive to communication(s) filed on *21 March 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-5* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *6/23/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 2, the phrase "preferably" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jeppesen (US Patent No. 5364658) in view of Bar (German Patent No. DE 19857045, as read via the translation of US Patent No. 6858261).**

1. Regarding claim 1, Jeppesen describes a coating device that applies a coating to parts of an edge (*i.e.*, parts of the outside surface) of a moving elongated workpiece (**item 18**), characterized in that said device comprises a device (**spray box 20**) for applying a compound and two separate UV lamps (**lamps 24, 26**) arranged thereafter in the direction of movement of the workpiece (**18**) (column 4, lines 1-16, 26-42, Figs. 1-3). While Jeppesen does not explicitly state that the applied coating is a water-soluble compound, the type of coating material used in the coating device represents a claim of intended use that does not structurally distinguish the claimed invention from the prior art apparatus of Jeppesen (see MPEP 2114).

2. Further regarding claim 1, Jeppesen describes two separate UV lamps (**24, 26**) for hardening the coating material, but does not explicitly describe near-infrared (NIR) driers. However, Bar teaches that both UV hardening and NIR drying by exposure to a NIR source (**infrared lamp 11**) are two alternative methods for binding a coating agent to a surface after a coating operation (Bar: column 2, lines 7-21, 46-62, column 4, lines 18-26). Bar further teaches that water strongly absorbs NIR radiation, such that the coating object can be dried with NIR radiation without substantial heating of the coating object and without a further cooling step (Bar: column 2, lines 59-67).

3. One of ordinary skill in the art at the time of the invention desiring to coat an object with a water-based lacquer or paint would therefore have appreciated that the

use of a NIR drier instead of a UV lamp in the device of Jeppesen would represent an obvious, art-recognized component used for the same intended purpose of binding a coating to a surface. Said artisan would further recognize that the use of a NIR lamp would advantageously minimize heating of the coating object.

4. Regarding claim 3, regulating of the NIR driers of Jeppesen in view of Bar depending on the application medium represents a claim of intended use that does not patentably distinguish the structure of the claimed invention from that of a prior art device capable of being operated in the same manner (see MPEP 2114). The intensity of the IR driers (**lamps 11**) of Jeppesen in view of Bar can be adjusted (Bar: column 7, lines 5-11), and the apparatus of Jeppesen in view of Bar can be operated such that the NIR driers are regulated depending on the application medium.

5. **Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jeppesen in view of Bar as applied to claim 1 above, and further in view of Biallas (US Patent No. 5888592).**

6. Regarding claim 2, Jeppesen in view of Bar teaches the use of NIR driers, but does not explicitly teach the use of NIR driers that can be aligned. However, Biallas teaches a drier for drying a moving coated object via irradiation in which the driers (**IR emitters 3**) can be aligned (*i.e.*, the driers are pivotable) so as to dry elongated objects (**7**) having either a horizontal or a vertical orientation (Biallas: column 3, lines 50-62). One of ordinary skill in the art at the time of the invention, desiring to coat objects of differing shapes and orientations in the apparatus of Jeppesen in view of Bar, would

therefore have found it obvious to make use of NIR driers that can be aligned in order to accommodate the differing coating objects.

**Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jeppesen in view of Bar as applied to claim 1 above, and further in view of Kapp-Schwoerer (US Patent No. 5236746).**

7. Regarding claim 4, Jeppesen in view of Bar does not disclose the use of cooling plates. However, Kapp-Schwoerer teaches the use of cooling plates disposed on a conveyor (**14**) that transports an elongated coating object (**board, substrate 18**) past a drier (**infrared rods 22**) in order to maintain the coating object at a low temperature (Kapp-Schwoerer: column 5, lines 14-33, column 3, lines 36-52, Fig. 1).

8. One of ordinary skill in the art at the time of the invention would therefore have recognized that the use of cooling plates to keep the coating object from overheating would represent an obvious use of a known technique used to yield a predictable result.

**Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jeppesen in view of Bar as applied to claim 1 above, and further in view of Nussbaumer (US Patent No. 6176927).**

9. Regarding claim 5, Jeppesen in view of Bar discloses an application nozzle (**spray nozzle 36**), and a suction system with a suction opening (**exhaust 46, exhaust channel 40**) (Jeppesen: column 4, lines 38-58, Fig. 2), but does not explicitly describe a suction nozzle.

10. However, Nussbaumer teaches the use of a coating apparatus having an application nozzle (**spray element 15, 16**) and a suction nozzle (**suction head 14**) that directs material to an exhaust (**line 13**) (Nussbaumer: column 3, lines 47-62, Fig. 2). One of ordinary skill in the art at the time of the invention would recognize that adding the suction nozzle of Nussbaumer to the suction system of Jeppesen in view of Bar would represent an obvious addition of a known element that would fail to produce any new and unexpected benefit.

## ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Albert Hilton whose telephone number is (571)-270-5519. The examiner can normally be reached on Monday through Friday from 8:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dah-Wei Yuan can be reached on (571)-272-1295. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Albert Hilton/
Examiner, Art Unit 1717

/Dah-Wei D. Yuan/
Supervisory Patent Examiner, Art Unit 1717